

# Satellite mapping finds new colony of Emperor penguins

January 20 2023

---



British researchers have found a new colony of endangered Emperor penguins in Antarctica using satellite technology.

Satellite mapping technology has discovered another new colony of the highly threatened Emperor penguins in Antarctica, researchers revealed

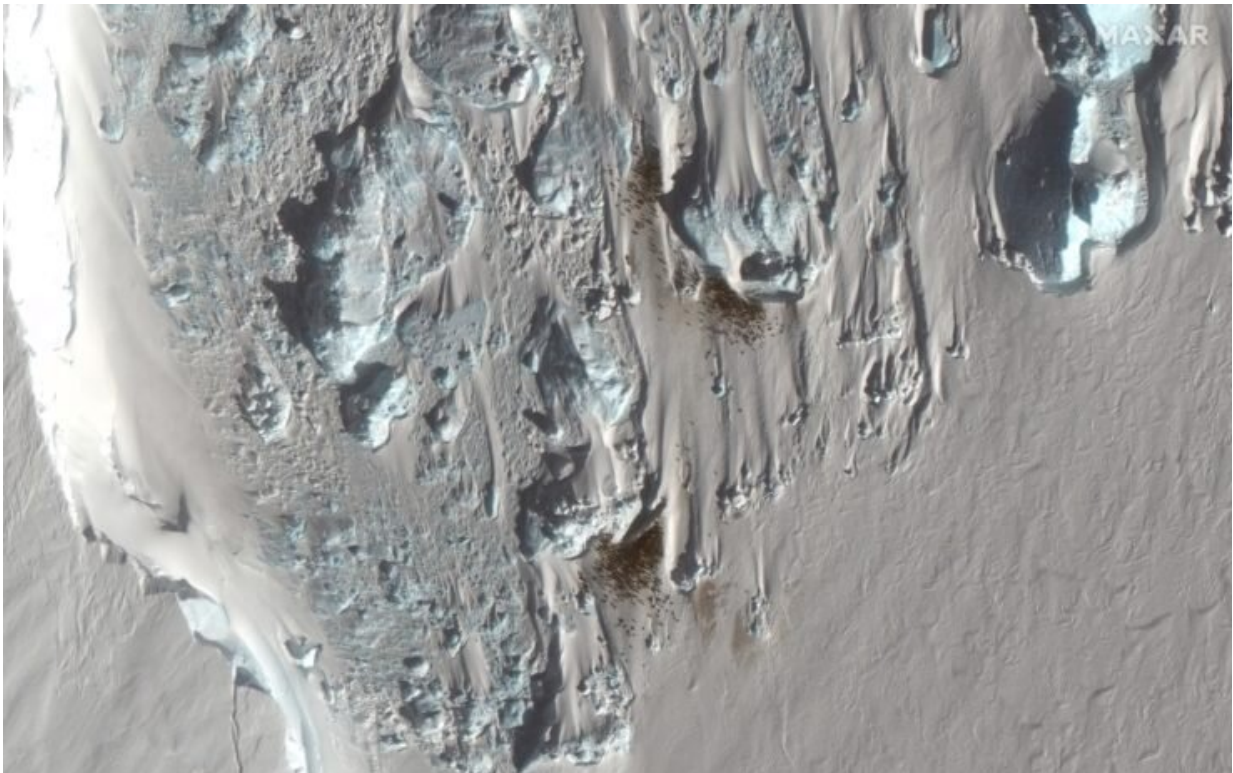
Friday.

The find, announced by the British Antarctic Survey (BAS) to mark Penguin Awareness Day, brings the total number of known [emperor penguin](#) breeding sites around Antarctica's coastline to 66.

It is the latest in a series of Emperor penguin breeding sites detected using the satellite technology.

The birds, which are endemic to Antarctica and the biggest of the 18 penguin species at around 1.2 metres (nearly four feet) tall, face almost complete annihilation due to [climate change](#) and the loss of sea ice.

The US Fish and Wildlife Service last year placed Emperor penguins, which need sea ice to breed, on its [endangered species list](#), calling the move "an alarm bell" and "call to action".



Aerial imagery from the the Maxar WorldView-3 satellite shows the newly discovered emperor penguin colony at Verleger Poin. Credit: Maxar Technologies

Recent projections suggest that under current warming trends, 80 percent of colonies will be quasi-extinct by the end of the century.

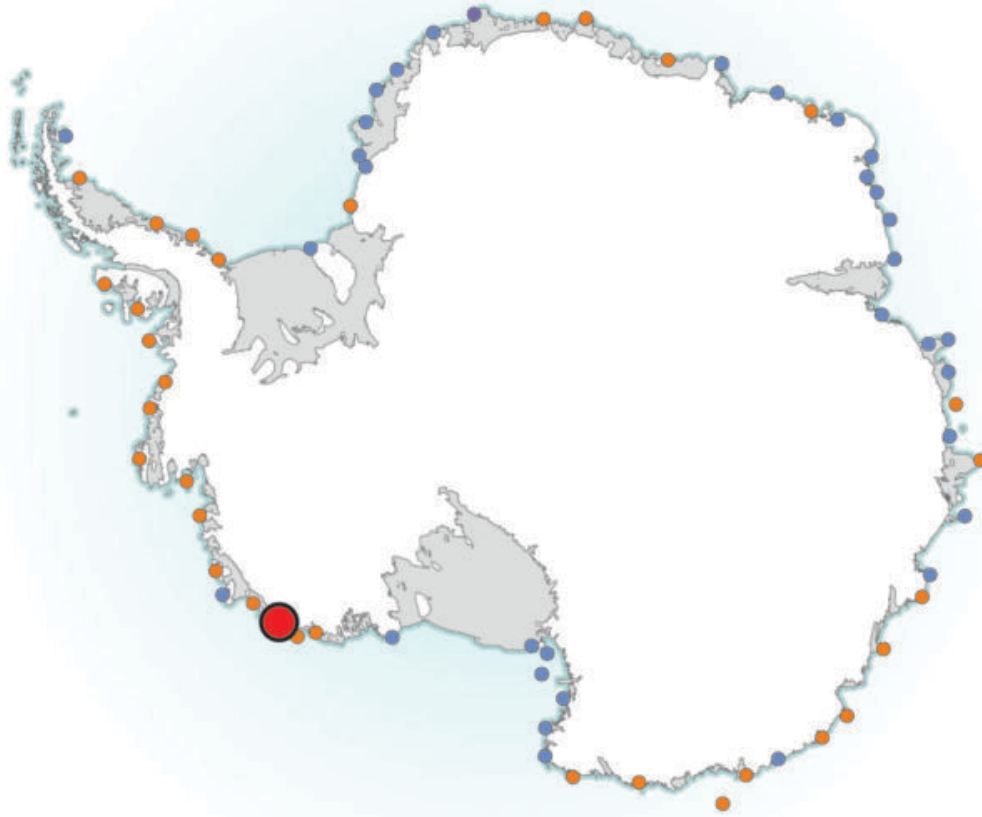
Scientists from the BAS uncovered the latest site, home to around 500 birds, by identifying signs of penguin excrement, known as guano, on the landscape at Verleger Point in West Antarctica.

Guano stains the snow and rock terrain brown and is easy to spot, while the [flightless birds](#) themselves are too small to be seen from satellites.

## 'Good news'

The researchers studied images from the EU's Copernicus Sentinel-2 satellite mission and compared them with high resolution footage from the MAXAR WorldView3 satellite.

Peter Fretwell, who studies wildlife from space at BAS and was lead author of the research revealing the find, called it "exciting" but cautioned that the existential risk to the birds remained.



There are 66 known emperor penguin colonies, of which half have been identified via satellite images. Credit: British Antarctic Survey

"Whilst this is good news, like many of the recently discovered sites, this colony is small and, in a region badly affected by recent sea ice loss," he said.

Emperor penguins are found in areas that are very hard to study because they are remote, inaccessible and extremely cold, with temperatures dropping as low as minus 60 Celsius (-76 Fahrenheit), according to the

BAS.

Its researchers have for been looking for new colonies 15 years by searching [satellite images](#) for penguin guano.

The technology also helped the BAS detect a "catastrophic" breeding failure among the second largest Emperor colony in Antarctica between 2016 and 2019.

Nearly all chicks born over the three years died as their icy Antarctic habitat shrank due to abnormally warm and [stormy weather](#) breaking up the critical sea ice.

Emperors came to global fame with a 2005 documentary, "March of the Penguins", portraying their annual trek across the icy wastes, and the 2006 cartoon movie "Happy Feet".

© 2023 AFP

Citation: Satellite mapping finds new colony of Emperor penguins (2023, January 20) retrieved 6 May 2024 from <https://phys.org/news/2023-01-satellite-colony-emperor-penguins.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.